

Weekly Report 2

Group Nr. 10

1 Weekly Progress

This week, we have computed the rectified images in order to evaluate the disparity map of the two images. Implementation process is carried out with the use of OpenCV libraries. The tasks are organized as below: (we hold hackathon via vscode live share)

- Utilization of feature points to compute fundamental matrix (Atilla, Benjamin, Siyuan, Jiesheng)
- Uncalibrated stereo image rectification (Atilla, Benjamin, Siyuan, Jiesheng)
- Disparity map computation (Benjamin, Siyuan)

2 Problems

Currently we are using `cv::StereoBM` to compute disparity from a rectified stereo image pair, meanwhile our group is also investigating triangulation method.

3 Results

Fig. 1 The left two images are rectified images from two different view. The image on the right is the disparity computed using opencv.

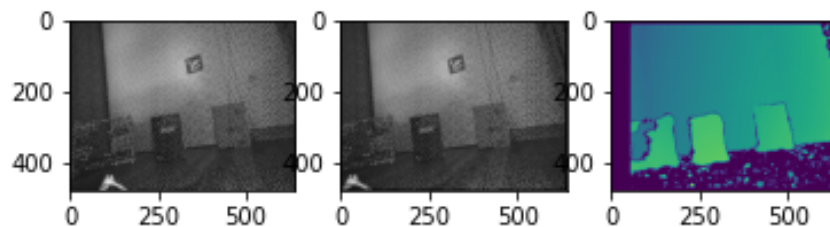


Figure 1: The rectified grey images (left and middle) and the disparity map (right)

4 Plan

For the next week, we aim to implement a 3D point cloud reconstruction using the disparity map of the two images. Depending on the progress and potential perplexities, we will follow up with the surface reconstruction.